

WHAT IS CLAIMED IS:

1. A system for transmitting from a current stage having a host system to a next stage with limited clock jitter, a signal containing either digital video from a preceding stage or digital video from the host system of the current stage, comprising:

a digital video scaler (DVS) for scaling the digital video received from the preceding stage to a constant resolution;

a constant-frequency clock connected to the DVS; and

a multiplexer for selecting either the scaled digital video from the DVS and the digital video from the host system of the current stage.

2. The system of claim 1, wherein said DVS comprises:

a retiming FIFO for retiming the received video received from the preceding stage; and

a scaling engine for scaling the retimed video data to match the constant resolution.

3. The system of claim 1, further comprising a receiver for receiving a signal containing digital video from the preceding stage.

4. The system of claim 1, wherein said signal is a TMDS signal.

5. The system of claim 1, wherein said signal is an LVDS signal.

6. The system of claim 1, wherein said signal contains audio.

7. A method of transmitting from a current stage having a host system to a next stage with limited clock jitter, a signal containing either digital video from a preceding stage or digital video from the host system of the current stage, comprising the steps of:

scaling the digital video received from the preceding stage to a constant resolution using a constant-frequency clock; and

selecting between the scaled digital video and the digital video from host system of the current stage.

8. The method of claim 7, wherein said step of scaling comprises the steps of:

retiming the digital video received from the preceding stage; and

creating video data matching the constant resolution from the retimed video data.

9. The method of claim 7, wherein said step of scaling further comprises the step of superimposing an on-screen display (OSD) message.

10. The method of claim 7, wherein the signal is a TMDS signal.

11. The method of claim 7, wherein the signal is an LVDS signal.

12. The method of claim 7, wherein the signal contains audio.

13. A method of transmitting from a current stage having a host system to a next stage with limited clock jitter, a signal containing either digital video from a preceding

stage or digital video from the host system of the current stage, comprising the steps of:

selecting between the scaled digital video from the preceding stage and the digital video from the current stage; and

scaling the selected digital video to a constant resolution using a constant-frequency clock.

14. The method of claim 13, wherein said step of scaling the selected digital video comprises the steps of:

retiming the selected digital video using a FIFO; and

creating video data matching to the constant resolution from the retimed data.

15. The method of claim 13, wherein the signal is a TMDS signal.

16. The method of claim 13, wherein the signal is an LVDS signal.